



The STEWARD

North Carolina Division of Parks and Recreation

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Michael F. Easley
Governor

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William G. Ross Jr.
Secretary, DENR

PARKS PLAY BIG EDUCATION ROLE

The state parks system continues to play a dominant role in North Carolina's efforts to nurture environmental education.

At a November banquet in Research Triangle Park, the latest batch of 294 newly-certified environmental educators was honored by the departments of Education and Environment and Natural Resources. Of that group, more than 40 percent were employees – current and former – of the Division of Parks and Recreation.

Howard Lee, chairman of the State Board of Education, told the group that environmental education is essential to the classroom "The power of outdoor, hands-on learning impacts all subject areas – math, science, language arts and social studies – and has proven to result in greater overall academic achievement," he said.

But beyond its advantages as a learning tool, environmental education is also part of the division's mission as set out in the State Parks Act. The state parks system is charged with educating citizens about natural resources, as well as protecting those resources and providing recreation.

It's natural to expect park rangers and superintendents to be at the leading edge of environmental education, said Phil McKnelly, division director.

"We've found that the more people can learn about our important natural resources, the more excited they become about helping to protect those resources," he said. "Environmental



TEACHERS PARTICIPATE IN AN ENVIRONMENTAL EDUCATION WORKSHOP AT GOOSE CREEK STATE PARK.

education is that crucial first step toward developing a public consciousness of stewardship."

North Carolina's certification program in environmental education was the first of its kind in the country and has been used as a model in other states.

The program began in 1996 with 25 educators enrolled, and now has more than 1,660 teachers, park rangers and other outdoor educa-

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FOR STATE PARKS INFO AND EVENTS

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Department of Environment and Natural Resources

FLEMING PROMOTED AT KERR LAKE SRA

Bryce Fleming, who began working at Kerr Lake State Recreation Area as a seasonal ranger while in college, has been promoted to the Superintendent IV position there.

Fleming was raised in nearby Henderson and graduated in 1993 from the University of North Carolina at Wilmington with a bachelor's degree in biology. He was a

seasonal employee at the recreation area for four summer seasons.

Fleming joined the division full-time in 1994 as a ranger at Weymouth Woods Nature Preserve. In 1997, he returned to Kerr Lake as a Ranger III posted at the County Line recreation site. Fleming was promoted to Kerr Lake Superintendent I in 2001, and that year married Lori Fleming,

now the north district interpretation and education specialist.

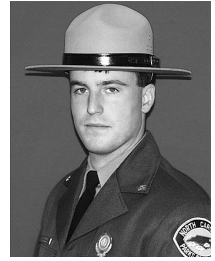
In announcing the promotion, Lewis Ledford, superintendent of state parks, said, "Kerr Lake is in the midst of an important capital development program to accommodate growing visitation, which demands a superintendent of Bryce's caliber. We're pleased to have him assume leadership at what is becoming one of the fastest-growing destinations in the state parks system."

"I view his experience as both a ranger and administrator at Kerr Lake and his hometown knowledge of the region as valuable assets."

Fleming is a certified environmental educator and burn boss. He is the current chairman of the division's Interpretation and Education Council.

Fleming noted that immediate challenges will include directing the many changes in facilities and staffing that continue at the recreation area. Also, the park's interpretation and education programs are expanding, and new visitor's center exhibits are being developed.

"I recognize that I'm fortunate to be surrounded by a very talented staff at Kerr Lake. They make my life easier," Fleming said. "And, I've been around here long enough to know that Kerr Lake is extremely important to the surrounding community for both recreational opportunities and the local economy."



From The Director's Desk

That our state parks system is at the leading edge of North Carolina's efforts in environmental education comes as no surprise.

As noted elsewhere in this month's issue of The Steward, more than 40 percent of environmental educators recently honored at a banquet in Raleigh were current or former employees of the division. It is by design in our State Parks Act that education ranks alongside recreation and conservation as the components of our mission.

The reasons are obvious. Citizens who are knowledgeable about our natural resources – and, very often they are introduced to those resources in our parks – not only become stakeholders in our parks system, but are more attuned to a conservation ethic in their public and private lives. What's more, they find another reason to enjoy their trips to a state park.

All of this is a source of pride for me, for others in state government and should be for each of you as well. Bill Ross, Secretary of Environment and Natural Resources, told the educators at the banquet, "This is a critical time in our state's history for environmental protection. Education of our adults and children is key to our future, our quality of life and the health of our children and grandchildren. We are extremely proud of this environmental education certification program."

Our program of education in the parks ranks second to none and is often viewed as a model by other states. The program has grown in scope and depth, with interpretive programs, formal educational experiences and meaningful exhibits.

But, most importantly, it's the result of people in our division who are committed and knowledgeable. I commend and thank each of you.

Sincerely,

Phil

Philip K. McKnelly

FRIENDS AID WACCAMAW WATER QUALITY

By DEBORAH A. KELSO
Water Quality Education Coordinator
Friends of Lake Waccamaw State Park

Friends of Lake Waccamaw State Park continues to bring together state agencies, universities, scientists, political leaders, Lake Waccamaw town government and citizens to address nonpoint source pollution.

The story began in 1990 when a major rain had just ended. A walk to a pier at the end of Pecan Lane revealed a light discoloration in the black waters of the lake. What is happening? Waters along the north shore carried sediments from stormwater ditches.

Further investigation revealed many large ditches discharging tremendous amounts of soil sediments and perhaps the pollutants they can carry.

The town council held meetings with state agencies to ask for help. There was some engineering by the Soil and Water Conservation Service to divert part of the stormwater, but the project had shifted to address the need to divert more stormwater.

Water quality studies by UNC-Wilmington's Dr. Larry B. Cahoon in 1995 pinpointed water quality problems on the more heavily populated north shore and at a canal bridge. Septic systems along the west side of the lake discharge into the canal. The Friends co-wrote a grant application (for education, water quality testing and engineering) while supporting a clean water grant for the town. The Friends group and East Carolina University have continued to support stormwater management funding for the town through a Clean Water Management Trust Fund grant.

Where are we today? The engineers are still seeking the best methods to address stormwater diversion with the town to begin action in 2004. The Friends continues to publish an informative newsletter and provides a third educational program integrating the lake's flora and fauna and recreational uses to further promote clean water. The next educational program will be held in March at the park's visitor's center.

This is not the end of growth pressures for the lake area, but rather just the beginning. Interstate 74 is a priority, which could alter the drainage patterns in the upper part of the Waccamaw River basin. Population growth along



JENNIFER EVERETT OF THE NC DIVISION OF WATER QUALITY WITH THE PARK'S YELLOW PITCHER PLANTS.

the coast pushes residents toward this area to escape traffic. Ads promote Columbus County as a tourism and retirement destination. Attractive interest rates spur development growth with another 75 home sites, or more, currently planned along the north shore. A proposed regional landfill east of the park in Green Swamp threatens surface and groundwater with the potential for extremely toxic liquid waste.

Lake Waccamaw and the Waccamaw River are replenished from the Pee Dee River system. There is concern about the amount of water being diverted out of the watershed and the lowering of the aquifer or groundwater.

Just as some of our sister parks face growth pressures, Lake Waccamaw State Park could not forever remain immune here in the swamps of southeastern North Carolina. The word is out that this is a nice place to live no matter one's age.

Now more than ever, we need planning with sustainability in mind, rather than unmanaged growth with its pollution impacts.

Invaluable opportunities to purchase land along the Big Creek tributary and near parklands, for protection of natural areas and water quality, have presented themselves. These land acquisitions would help preserve the recreational uses now and for future generations.

We thank North Carolina state parks, our volunteers and staff and all those who continue to study, educate, fund and remain dedicated to protecting this beautiful natural resource, Lake Waccamaw State Park. Lake Waccamaw is the "most biologically diverse fresh body of water" in the eastern United States and designated "outstanding resource waters" by the state.

NEW NATURAL AREA ON HAW PLANNED

One of the first projects of the state's new Ecosystem Enhancement Program (EEP) will likely result in a new state natural area, managed by the Division of Parks and Recreation, along the Haw River in Chatham County.

In December the Council of State approved the division's purchase of roughly 900 acres from Duke University that has been a far-flung parcel of the 8,000-acre Duke Forest. The Triangle Land Conservancy, a private land trust, acted as broker for the deal.

The \$2.5 million purchase will be funded through the EEP, a joint venture of the state's departments of transportation and environment and natural resources. The program is an extension of DOT's wetlands mitigation program that seeks to offset damage that highway construction projects have done to environmentally sensitive areas.

The property runs along both sides of the Haw River north of Jordan Lake and includes more than four miles of river frontage. Most of the land lies between US 64 and US 15-501, and its southern boundary touches a portion of Jordan Lake State Recreation Area. Division staff there will manage the property.

The property includes much of the river's floodplain as well as heavily forested slopes and bluffs on both sides. Duke University has kept the property open to hikers, and the adjoining stretch of the Haw offers a series of mild rapids making it very popular with canoeists and kayakers.



HIKERS PAUSE ON A BLUFF OVERLOOKING HAW RIVER

Preserving the property will help protect water quality in a portion of the river that is home to at least two endangered species – the Cape Fear shiner and Septima's clubtail dragonfly.

Carol Tingley, chief of planning and natural resources for the division, said the property likely will eventually become the Haw Slopes State Natural Area, but authorization from the General Assembly is needed to add it as a state park unit. An effort to seek authorization will be made during the legislature's upcoming short session, she said.

A management plan will be written to decide how the property is to be used and the level of access, she said.

Duke University bought the property in the 1960s for research but has never used it because it is too far from the Durham campus, a university spokesman said. The land has not been surveyed, and could range up to around 1,000 acres, he said.

HELP FOR FOOD BANK

A DOZEN EMPLOYEES OF THE DIVISION OF PARKS AND RECREATION GATHERED AT THE FOOD BANK IN RALEIGH DEC. 4 TO HELP SORT FOOD PACKAGES FOR THE HOLIDAY SEASON. DESPITE CHILLY TEMPERATURES INSIDE THE WAREHOUSE, THE VOLUNTEERS REPORTED GOOD FELLOWSHIP AND A VERY GRATIFYING EXPERIENCE.





ORIGINAL FORESTRY ROADBED, ABOVE, HAS WIDE DITCH LINES AND LACKS A TRAIL 'FEEL'. THE SECTION AT RIGHT HAS BEGUN TO REBOUND AFTER ONLY ONE GROWING SEASON SINCE FILLING THE DITCH LINES. IT OFFERS HIKERS A DRIER WALK AS WELL AS RESPITE FROM THE CLOSE BAY FOREST THAT SURROUNDS THE REST OF THE LAKESIDE TRAIL.



JONES LAKE TRIES NEW TACK ON TRAIL

One item that most state parks take for granted as standard equipment has always been in short supply at Jones Lake State Park.

Building a suitable length of sturdy hiking trail in the soggy landscape of organic soils has bedeviled rangers and superintendents at the bay lake park since it was created in the 1930s. The single lakeside trail cut in 1979 has never been adequate, said Superintendent Greg Schneider.

"It's basically root mat over the water of the lake. Even last summer in the drought, it was wet and not a pleasant place to hike," Schneider said. During the heavy rains of the past spring, portions of the trail were, at times, under several feet of lake water.

"We figure it's a three-mile hike, but it feels like eight if you walk it," he said.

So with the help of intern Justin Barnes, Schneider began early this year to extend the trail's reach using a roadbed near the park's boundary. The road was built and maintained as part of the sprawling road system of the surrounding Bladen Lakes State Forest.

The Division of Forest Resources had always left the short section of road open to wood products traffic and hunters, but at Schneider's request, agreed to limit access for the benefit of park hikers.

The roadbed follows a section of the lake's high sand rim. The relative openness and diversity of vegetation gives hikers a much-needed respite from the close bay forest that engulfs the entire length of the old trail as it

circles the lake.

Extending the trail to the roadbed for some distance before it returns to the lake's shore will lengthen it to about 4 1/2 miles, and will reroute hikers around the lowest, most tedious portions of the old trail, Schneider said.

Along that section, shoes hang drying in the trees, after having been abandoned in the muck by some hikers and later recovered by others in drier times, he said.

The converted roadbed has advantages, but was not a very "trail-like" experience at first. The forestry division had designed a 50-foot-wide byway with substantial shoulders and ditches, cleared of vegetation and raked of pine straw.

Using the hand labor of volunteers and a borrowed tractor, staffers began filling the ditches with sand from the shoulders. Just one growing season re-vegetated much of the roadbed surface along its edges, and this season's pine needle drop is restoring a natural look.

Also, about 140 tons of gravel were added to portions of the old trail in an effort to help stabilize it.

Schneider said that members of the Hillel Jewish Collegiate Service Organization descended on the park this summer, contributing 195 hours of volunteer labor, most of it with rakes and wheelbarrows.

Two other youth groups were regular contributors, and even a group of young girl scouts showed up one day to haul and spread gravel, Schneider said.

EDUCATION

CONTINUED FROM PAGE 1

tors enrolled. About 500 educators – including 133 division employees – have completed the program.

To earn the certification, participants complete 200 hours of professional development, including instructional workshops, 50 hours of outdoor experiences, a teaching component and a community stewardship project.

For park rangers and other division employees, this is beyond division-mandated training in interpretive skills.

The result is a cadre of rangers in the parks who are skilled in public speaking and who can talk in considerable depth about the natural resources that park visitors are experiencing. Groups of schoolchildren, as well as families on weekend visits, can come away with real lessons learned.

That concept is so central to the parks system's philosophy that in 1999, a staff directive declared that interpretation and education was the top priority of rangers and superintendents. It further ordered all rangers, superintendents and

education specialists to be enrolled in the program with certification being a requirement for advancement.

The state parks themselves have become not only classrooms, but laboratories for the professionals. In 2002, more than 1,500 teachers attended training sessions in parks. In all, about half a million visitors each year attend educational programs in the parks.

The division opened its first environmental education center at Goose Creek State Park in 1998 and is currently exploring the potential for a second center at South Mountains State Park.

Not content to rest on its successes, North Carolina is intent on taking environmental education several steps further.

At the banquet, Lee outlined three initiatives for the future. He called for an advanced level of certification, a thorough review of having certification become a formal credential for North Carolina classroom teachers and a pilot program where schools would incorporate environment as an "integrated context for learning" (EIC).

THE WRIGHT STUFF

SOME 20 STATE PARK RANGERS VOLUNTEERED FOR DUTY DURING CEREMONIES AT THE OUTER BANKS COMMEMORATING THE CENTENNIAL OF THE WRIGHT BROTHERS' FLIGHT. THIS GROUP WAS ON HAND DEC. 17 AT THE WRIGHT BROTHERS MEMORIAL. THE NATIONAL PARK SERVICE, VISITORS AND DIGNITARIES PRAISED THE RANGERS FOR THEIR PROFESSIONALISM AND COMMITMENT.



NEW RIVER GROUP OUTLINES PROTECTION PLAN

The National Committee for the New River has announced a "Five Year River Protection Plan" with a goal of preserving 5,000 acres of significant lands through conservation easements.

The nonprofit group has begun a fundraising campaign to generate \$2.5 million over the next three years, to be used as seed money for state and federal conservation grants, according to Jeffrey Scott, executive director. The entire protection plan is projected to cost \$13.6 million.

Scott said the committee is also developing

a program to help teach landowners in the river corridor how to protect the river's banks from erosion by maintaining riparian buffers. And, the committee has begun a water-quality monitoring program.

"Our plan is to give farmers, developers and families on the banks of the river the tools to protect the pristine waters that flow from mountain springs and streams to form the New River," Scott said.

Another long-term goal of the river protection plan is to restore 50 miles of eroding stream banks.

NORTH CAROLINA STATE PARKS MONTHLY ATTENDANCE REPORT 2003

PARK	NOVEMBER 2003	TOTAL YTD NOV. 2003	NOVEMBER 2002	TOTAL YTD NOV. 2002	% CHANGE (2002/2003)	
					NOV.	YTD
Carolina Beach	16,111	242,660	12,980	228,273	24%	6%
Cliffs of the Neuse	6,515	114,217	6,069	133,903	7%	-15%
Crowder's Mountain	22,488	200,997	23,717	275,383	-5%	-27%
Eno River	23,342	265,303	24,535	289,243	-5%	-8%
Occoneechee Mountain	3,073	28,545	3,776	33,498	-19%	-15%
Falls Lake	18,772	654,910	35,874	1,009,355	-48%	-35%
Fort Fisher	27,840	712,391	44,173	977,568	-37%	-27%
Fort Macon	67,290	1,227,378	57,346	1,263,028	17%	-3%
Goose Creek	10,653	116,790	9,371	130,395	14%	-10%
Gorges	4,397	86,026	8,272	152,048	-47%	-43%
Hammocks Beach	6,411	144,003	11,766	182,074	-46%	-21%
Hanging Rock	23,364	355,650	24,694	380,003	-5%	-6%
Jockey's Ridge	35,906	1,014,419	43,179	961,674	-17%	5%
Jones Lake	5,812	114,962	5,068	101,368	15%	13%
Jordan Lake	20,366	731,680	31,207	1,534,147	-35%	-52%
Kerr Lake	58,312	1,225,452	48,260	1,545,148	21%	-21%
Lake James	12,509	240,621	11,887	250,787	5%	-4%
Lake Norman	29,286	360,682	20,220	361,019	45%	0%
Lake Waccamaw	4,212	85,238	4,456	96,196	-5%	-11%
Lumber River	4,708	49,244	7,273	54,443	-35%	-10%
Medoc Mountain	3,780	42,709	5,560	69,839	-32%	-39%
Merchant's Millpond *	3,091	136,231	6,511	87,444	-53%	56%
Morrow Mountain	20,400	251,548	31,160	406,220	-35%	-38%
Mount Jefferson	6,731	94,930	8,123	95,853	-17%	-1%
Mount Mitchell	39,922	670,179	32,512	554,433	23%	21%
New River	8,227	154,053	6,852	150,621	20%	2%
Pettigrew	4,613	80,903	5,149	78,070	-10%	4%
Pilot Mountain	48,106	390,577	36,962	375,538	30%	4%
Raven Rock	11,619	104,163	8,961	107,109	30%	-3%
Singletary Lake	455	21,167	162	15,241	181%	39%
South Mountains	13,966	175,908	13,944	159,769	0%	10%
Stone Mountain	25,677	311,989	25,940	440,029	-1%	-29%
Weymouth Woods	4,039	31,610	2,539	26,933	59%	17%
William B. Umstead	36,824	398,006	33,368	384,781	10%	3%
SYSTEMWIDE TOTAL	628,817	10,835,141	651,866	12,911,433	-4%	-16%

Mission

The mission of the North Carolina Division of Parks & Recreation is:

to protect North Carolina's natural diversity;

to provide and promote outdoor recreation opportunities throughout North Carolina;

and

to exemplify and encourage good stewardship of North Carolina's natural resources

for all citizens and visitors of North Carolina.

SAFETY ZONE

Get a Grip On Hand Safety

✓Wear the proper gloves for the job, including each time you handle hazardous solvents or chemicals.

✓Make sure machine safety guards are in place and in good working order.

✓Be aware of possible pinch points.

✓Carefully check materials and equipment for sharp edges, burrs and splinters.



The Steward

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